## WHAT IS CLAIMED IS:

1. An apparatus for recognizing positive/negative intention using a fine change of gamma wave of a brainwave, comprising:

a brainwave detecting portion for detecting the brainwave from a head of a user;

a brainwave amplifying portion for amplifying the brainwave detected from the brainwave detecting portion;

an A/D converting portion for converting the amplified brainwave received from the brainwave amplifying portion to one of a digital type; and

a recognizer for recognizing the positive/negative intention of the user by detecting the fine change of the gamma wave of the brainwave in the digital type, which is transmitted from the A/D converting portion.

- 2. The apparatus as claimed in claim 1, further comprising a control portion for generating control commands to a peripheral output device in response to the positive/negative intention recognized in the recognizer.
- 3. The apparatus as claimed in claim 2, wherein the brainwave detecting portion has an electrode at a left frontal area of the user.

4. The apparatus as claimed in claim 1, wherein the brainwave detecting portion has an electrode at a left frontal area of the user.

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- 5. A method for recognizing positive/negative intention using a fine change of gamma wave of a brainwave, comprising:
  - a step of detecting a brainwave from a head of a user;
- a step of receiving and amplifying the brainwave detected from the step 5 of detecting the brainwave;
  - a step of converting the amplified analog brainwave to one of a digital type; and
  - a step of recognizing the positive/negative intention of the user by detecting the fine change of the gamma wave of the brainwave in the digital type, which is transmitted from the A/D converting portion.

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- 6. The method as claimed in claim 5, further comprising a step of controlling for generating control commands to a peripheral output device in response to the positive/negative intention recognized in the step of recognizing the positive/negative intention.
- 7. The method as claimed in claim 6, wherein the recognition of the positive/negative intention in the recognition step is performed such that the fine change of an output of each frequency within a gamma wave band is sensed.
- 8. The method as claimed in claim 6, wherein the recognition step includes:
  - a step of receiving the brainwave of the digital type;

a step of calculating the fine change of frequency components included in the gamma wave band from the brainwave of the digital type; and

a step of determining positive/negative and presence/absence of the intention in response to the fine change.

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9. The method as claimed in claim 5, wherein the recognition of the positive/negative intention in the recognition step is performed such that the fine change of an output of each frequency within a gamma wave band is sensed.

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- 10. The method as claimed in claim 7, wherein the gamma wave band is in the range of 32 Hz to 40 Hz.
- 11. The method as claimed in claim 5, wherein the recognition step includes:
  - a step of receiving the brainwave of the digital type;
  - a step of calculating the fine change of frequency components included in the gamma wave band from the brainwave of the digital type; and
- a step of determining positive/negative and presence/absence of the intention in response to the fine change.
  - 12. The method as claimed in claim 11, wherein the fine change of the frequency components is calculated to be [P(first frequency) P(second frequency)] / [P(first frequency) + P(second frequency)] or P(first frequency) /

[P(first frequency) + P(second frequency)], and the first and the second frequencies are ones of the gamma wave band.

- 13. The method as claimed in claim 11, wherein the determination stepincludes:
  - a step of determining that the intention is present when two peaks higher than a first predetermined threshold value are present, and that the intention is not present when the two peaks are not present; and
- a step of determining the positive/negative intention by comparing a second predetermined threshold value with a distance between the two peaks.